

5-1975

(11) 476,088



# PATENT SPECIFICATION (21) 62, 951/73

Class (52) 43.4, 57.2

Int. Cl. (51) A45C 11/04; B65D 81/10, 85/38



Application Number (21) 62951/73  
Lodged (22) 28th November, 1972

Accompanied by a provisional specification PB 1394

Complete Specification  
entitled (54) CONTACT LENS CARRIER

Lodged (23) 27th November, 1973  
Accepted (44) 25th August, 1976  
Published (41) 29th May, 1975

Convention Priority (30) Nil

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Related Art (56)	52859/73	43.4
	450219 (22630/70)	43.4
	28732/71	43.4

The following statement is a full description of this invention, including the best method of performing it known to me :

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This invention relates to a lens carrier for the carrying of a contact lens.

At the present state of the art, contact lenses are carried in cylindrical carriers provided with small basket like webs one at each end for supporting the two contact lenses required to be worn by a user, there being provided a rubber 'O' ring at each end and a cap at each end, the caps threadably engaging the respective ends of the carrier and the 'O' rings constituting seals so that the contact lenses may be carried in a saline solution, and the entire carrier may be immersed in boiling water for sterilising purposes.

It is a difficult problem for some contact lens users to remove the lenses from the carriers, and in some instances the lenses may be damaged if placed carelessly in the carrier baskets and the caps screwed into position, since a cap can sever any lens which is caught between the cap and the body of the carrier.

With the object of providing a more readily manageable carrier, and with the object of reducing the danger of damage to a lens, a lens carrier according to this invention comprises a body having a portion at each end with an external thread, a pair of caps each having a skirt containing an internal (female) thread threadably engaging a respective said external thread, and a pair of lens support members each of curved cross sectional shape and having a peripheral flange of greater thickness than the remainder of the support member, the flange being

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engaged between an end of the body and a respective end cap, the support member being of flexible and resilient elastomeric material.

An embodiment of the invention is described hereunder in some detail with reference to and is illustrated in the accompanying drawing, which is an elevational section of a carrier containing a pair of contact lenses one cap of the carrier being shown removed.

In this embodiment a carrier 10 for a pair of contact lenses 11 includes a body 12 having an enlarged diameter central portion 13 and two reduced diameter end portions 14 each of which is provided with an external thread 15, there being a shoulder <sup>16</sup><sub>17</sub> between the central and each respective end portion 14. The body is provided with a central cylindrical passage 18 extending therethrough. The ends of the body are truly square with respect to its central axis since they are required for sealing purposes.

A pair of caps 21 are provided one for each end of the body, each cap 21 having a skirt 22 which contains an internal (female) thread 23 to threadably engage a respective external thread 15 on a reduced diameter end, the female thread terminating in a peripheral face groove 24 in the inner face of the cap 21. Each cap 21 is provided with a central projection <sup>25</sup> for projecting into the body when the cap is screwed thereonto. It is desirable that both the body and cap should be of material capable of withstanding boiling water, for example an acetyl type plastic.

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The carrier 10 is provided with a pair of lens support members 28 one for each end, each lens support member 28 being formed from non-toxic elastomeric material which in this embodiment is a synthetic pale crepe rubber capable of withstanding boiling water and having a durometer hardness of not more than 80 (Shore A). An alternative material is sold by B.F. Goodrich Chemical Limited, Altona, Victoria, Australia, made under Trade Mark ESTANE, either grade 58109 or grade 58300. This material is a soft pliable resilient polyurethane. The lens support member 28 is of part spherical or hemispherical shape with an outstanding peripheral flange 29 of greater thickness than the remaining portion, (that is a "bowler hat" section) and is provided with a central aperture 30. The inner surface of the lens support member is approximately the same contour as a lens to be supported. With this arrangement then a lens can be carried by the support member by simply dropping into the support member and if the finger of the user is run over the periphery of the support member it ensures that the lens is sufficiently in position that tightening of the cap 21 is unlikely to damage it. The support member is then dropped on to an end of the body and the cap screwed into place, the cap engaging the peripheral flange of the support member to thereby seal the cap with respect to the body. The projection is normally out of contact with the lens but prevents floating of the lens if and when a saline solution is placed into the body. Normally a saline solution is

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placed into the body and the lens and support member positioned in the other end of the body and retained therein by the second cap.

When it is desired to sterilise the contact lens, the entire carrier is placed in boiling water, this being in accordance with known art. However when it is desired to remove a lens, a cap is simply unscrewed and the lens support member lifted from the body, whereupon the lens is readily removed from the lens support member. This greatly reduces the danger of the lens being lost, and of consequential possible damage to the lens.

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The claims defining the invention are as follows:-

1. A lens carrier comprising a body having a portion at each end with an external thread, a pair of caps each having a skirt containing an internal thread threadably engaging a respective said external thread, and a pair of lens support members each of curved cross-sectional shape and having a peripheral flange of greater thickness than the remainder of the support member, each flange being engaged between an end of the body and a respective end cap, the support member being of flexible and resilient elastomeric material.
2. A lens carrier according to claim 1 wherein each said support member contains a central aperture.
3. A lens carrier according to either claim 1 or claim 2 wherein each said support member is formed of pale crepe rubber having a durometer hardness not exceeding 80 (Shore A).
4. A lens carrier according to either claim 1 or claim 2 wherein each said support member is formed of pliable and resilient polyurethane having a durometer hardness not exceeding 80 (Shore A).
5. A lens carrier according to any preceding claim wherein the inner end face of each closure cap comprises a peripheral face groove of pitch diameter such that it sealably engages the flange of a said support member.

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6. A lens carrier according to any preceding claim wherein the inner end face of each closure cap comprises a central projection extending towards but not touching the support member engaged thereby.

7. A lens carrier substantially according to the embodiment described in the specification with reference to and as illustrated in the accompanying drawing.

Dated this 26th day of November, 1973.

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By their Patent Attorneys,  
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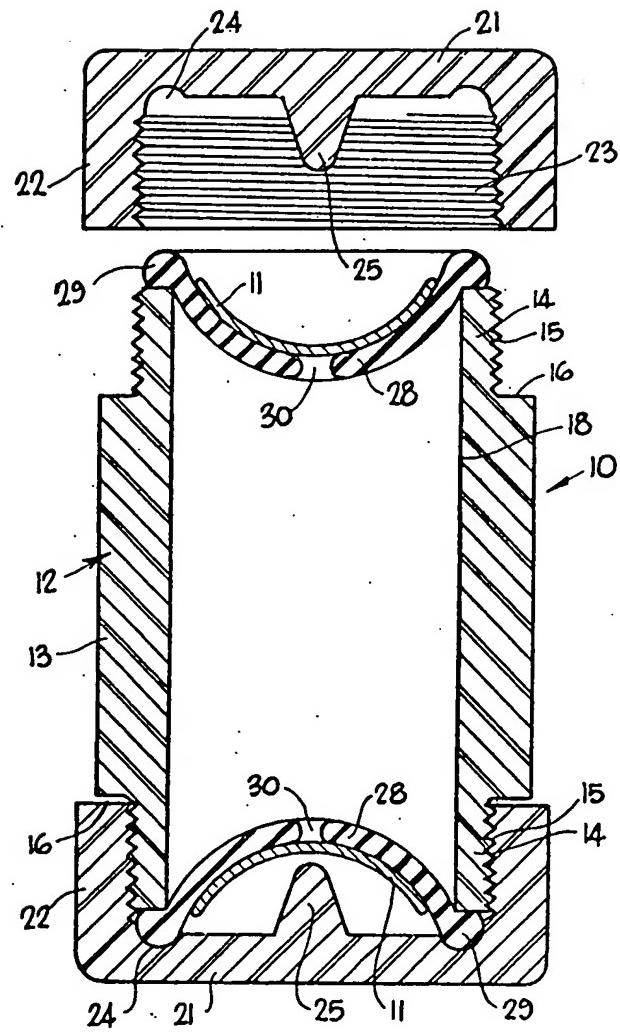
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